

~~CONFIDENTIAL~~9th May, 1960COCOM Document No. 3710.88/6COORDINATING COMMITTEERECORD OF DISCUSSIONONINTERPRETATION OF ITEM 1088(b): GEAR MAKING MACHINERY2nd May, 1960

Present: Belgium (Luxembourg), Denmark, France, Germany, Italy, Japan, Turkey, United Kingdom, United States.

References: COCOM Documents 3710.88/4 and 5.

1. The CHAIRMAN reminded Delegates that, during the discussion on the 31st March of the United Kingdom paper on the implementation of Item 1088(b), various technical comments had been made, and a new interpretation proposed, by the United States Delegation (see paragraph 4 of COCOM 3710.88/5). He asked whether Delegates had any comments to make, and also whether the representatives of countries producing equipment of this nature were prepared to answer the United States Delegation's query as to current implementation of the definition by their authorities (see paragraph 6 of COCOM 3710.88/5).
2. The GERMAN Delegate expressed his authorities' appreciation of the United States Government's concurrence in the understanding that machines incapable of the manufacture of small gears on a production-line basis should not be covered by the embargo. The German licensing authorities, in considering machines producing small precision gears assessed these machines - irrespective of their maximum work diameter - according to the smallest module of which they were capable and considered as covered by Item 1088(b) machines producing gears of a module finer than 0.5 mm. In the view of the German authorities, the smallest precision gears made in Europe were normally produced on machines which had been specially constructed - for example, table machines. The German producers normally indicated the largest and the smallest gears which the machine could produce, giving details of the number of teeth and the largest module, but not, as a rule, the smallest module. This seemed to indicate that the smallest gears were normally produced on special machines; otherwise the producer would mention the finest module to be obtained.
3. In all cases where the smallest module had not been referred to, the licensing authorities requested the producer to inform them what was the smallest module to which the machine could work economically; and, where that figure was under 0.5 mm., they considered the machine to be embargoed under Item 1088(b). The German Delegate stated further that the German licensing authorities doubted whether these smallest gears could be produced economically on machines with a relatively large diameter - for instance, 2". As, however, the proposal for a cut-off of 2" (50 mm.) had not met with unanimous approval in the Committee, the German authorities would be prepared - in the hope of reaching unanimity on the implementation of this item - to agree to a diameter cut-off of 4" (100 mm.), accompanied by a Note stipulating that this referred to

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manufacture on a production-line basis and therefore that only automatic or semi-automatic machines should be caught. The German authorities would be prepared, moreover, to verify the module question in the case of all applications under 4 inches (100 mm.) and to consider a machine as under embargo whenever the smallest module for manufacture on a production-line basis was under 0.5 mm. If the Committee could agree to the cut-off suggested, the Delegate thought that it was unlikely that many doubtful cases would arise. Such cases would be brought to the Committee. The German authorities wondered whether the machines having a work piece capacity of 7.5 inches mentioned in paragraph 4 of COCOM 3710.88/5 were not special ones built in small numbers only. They would appreciate it if the United States Delegation could specify the types involved and the names of the producers.

4. The UNITED KINGDOM Delegate stated that his authorities had given careful study to the United States views as set out in paragraph 4 of COCOM 3710.88/5. They were unable to agree that gears of a diametral pitch finer than 48 (the equivalent of a module finer than 0.5 mm) could be produced "on a production line basis" on machines with a maximum work-piece capacity of more than 4 inches. Gears of these fine pitches had to be of extreme accuracy and it was only on machines of small diameter capacity that such accuracies were obtainable in practice. United Kingdom experts considered further that the manufacturer's rating of machines was seldom a satisfactory guide. Frequently the minimum diametral pitch was not quoted, and, where it was quoted, it was usually an extreme figure, of which the machine was just capable but for which it would not be used in practice. Finally, with reference to the third sub-paragraph in paragraph 4 of COCOM 3710.88/5, nothing was known in the United Kingdom of any American machines with a maximum work piece capacity of $7\frac{1}{2}$ inches and capable of manufacturing gears with a diametral pitch finer than 48.

5. The BELGIAN Delegate said that his authorities could support the United Kingdom interpretation of Item 1088(b) as set out in paragraph 4 of COCOM 3710.88/4. They agreed that the present wording of this sub-item included in the embargo machines which were admittedly capable of producing gears of a module finer than 0.5 mm. but which had not been acquired to this end. Machines capable of producing large-diameter gears would not normally be used for the production of fine-pitch gears, not only because their purchase price would be out of proportion to the work to be done but also because the cost price of the end-product would be prohibitive owing to the fact that these machines had a very poor output in such conditions. The Belgian Delegation considered that the adoption of the United Kingdom proposal to limit the embargo to machines with a maximum work-piece capacity of 2 inches or, failing that, of 4 inches, would alleviate the severity of the embargo without increasing the strategic risk.

6. The ITALIAN Delegate stated that this matter was still being studied by the Italian experts. His authorities were of the opinion that any problem arising from the implementation of controls in this field could be solved on a national basis. However, the Delegate believed that his authorities would be prepared to participate in a further study of the subject during the next List Review, taking into account the various technical statements already made by a number of delegates.

7. The FRENCH Delegate stated that his position was similar to that of his Italian colleague. The French experts had studied this matter afresh in the light of the views expressed by the United States Delegation as reported in paragraph 4 of COCOM 3710.88/5. Their examination had not, however, led to a change in the position taken up on the 31st March. The French Delegation supported the United Kingdom interpretation of this definition, with which the majority of

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8. The UNITED STATES Delegate said he was pleased to receive considered statements from his colleagues, which he would report to his Government and which would receive careful study. Without attempting any definitive comment at present, he wished nevertheless to make the United States point of view clear on two points. Firstly, in the opinion of the United States experts, it appeared difficult to take any particular figure as a cut-off for maximum work-piece capacity - certainly not 4 inches - and still satisfy the intent of the definition. No absolute standard to which all Governments could refer had as yet been found. The Delegate reminded the Committee that paragraph 4 of COCOM 3710.88/5 set forth what his authorities felt would be a satisfactory guide. Secondly, the Delegate referred to a difference of fact: whereas United States experts stated that in their country machines having a maximum work-piece capacity of 7.5 inches could be used to produce gears with a module finer than 0.5 mm., the United Kingdom experts questioned whether this was possible and whether it was, in fact, the case. He would of course refer the United Kingdom statement to his experts for further review. It had been the United States view that machines with a maximum work-piece capacity of 7.5 inches or less would in most cases be production-type machines for the manufacture of fine-tooth gears. The Delegate thought that it might be advisable for experts to meet to discuss this aspect of the matter, which of course might not be feasible prior to the next Annual Review.

9. The CHAIRMAN proposed that, whether or not discussion during the List Review appeared necessary, the Committee should themselves resume consideration of this question within a few weeks.

10. The COMMITTEE agreed to discuss this matter again on the 9th June.

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